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Digital Rights Management: Old Hat or New Wrinkle? -- Ready or Not, DRM is Dramatically Altering Today's Publishing Landscape

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Through a "Content Looking Glass" from page 20

Archival rights have been a contentious issue in many licensing negotiations. While the print-based subscription model facilitated archiving old issues of journals, this is not an automatic part of the license for electronic content. In a recent article in *Searcher* (July/August 2002, p.40), **Doris Small Hefner** commented, "The issue of ongoing and continuing access to digital archives certainly remains a concern, but many have negotiated rights in perpetuity. Of course I remember acquiring my lifetime membership to a local discount store, which has now gone out of business. Clearly it was their lifetime, not mine, that they had in mind. So I still wonder whether or not libraries are truly prepared to mount their own electronic periodical archives."

Pricing Models and Opportunities

Pricing depends on the number of users, sources and provenance of the content, and the organizational structure of the libraries to be included in the deal. Discounting is


common, especially where there is latitude in numbers of users to be included and volume of the content increases.

Subscription pricing with a pre-determined number of simultaneous users (or passwords) is the most common form of license model. Typically one-year long, subscription models are starting to be available for shorter periods to accommodate the shortened budgetary cycles of many organizations and the shifting business strategy and research needs of users. Another common plan is per-seat or per-user pricing that has been traditionally negotiated on the basis of the number of employees/users. Vendors and libraries are experimenting with sliding scales of users (depending on business or research cycles), trying out new content with extended demonstrations, or time-limited tests of the content to ascertain the user-interest.

Transactional pricing is not just a "stop-gap," but rather an alternative that offers benefits to the library and greater ease for the user. The advent of Web-based access gives users the ability to purchase an occasional article or research study. Even "big ticket"

technical, market and financial reports are now offered on a transactional basis. Need to buy only one or two pages of a report? This is possible now without having to pay an additional fee. It isn't only corporate library users who are willing to pay for instant access to the study or research report they want. Academic and special libraries are using transactional pricing as an option for users – even if the library has a subscription to the print publication. Transactional licensing offers access to an increasingly wide range of content. Furthermore, transactional pricing transfers the expenses to departmental budgets without placing added burdens on the library's administrative budget

Understanding and Change

A complete understanding of the user community and its need and use of content is mandatory for creating a successful electronic content selection and licensing policy. Just as publishers have changed their business models, librarians can now change and expand their content buying models to offer a wide range of content, formats and functionality to users. 

Digital Rights Management: Old Hat or New Wrinkle? — Ready or Not, DRM is Dramatically Altering Today's Publishing Landscape

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An e-retailer is selling books by the page and renting them by the week. A publisher is offering online access to car repair manuals, chapter by chapter, for purchase or short-term rental. And a university clearinghouse is distributing case studies by single-use PDF instead of photocopies.

The Internet has totally altered the environment in which librarians and publishers strive to disseminate information, creating tensions and uncertainty as people of good faith on all sides wrestle with new questions without clear-cut answers. The only certainty is that we must move forward and work together to preserve intellectual property in this new era. We cannot retreat to the comfort of the familiar printed world; the new era is already upon us.

Digital Rights Management: Key Role in Content Access

As we crossed the threshold into Internet-era publishing, it soon became clear that a new mechanism was needed to buttress ownership to intellectual property. The mechanism that has evolved to meet this need is digital rights management. Regrettably, digi-

tal rights management or DRM typically refers solely to protecting intellectual property and downplays DRM's equally critical role in providing access to content. The two are different sides of the same coin.

DRM is now more important than ever in protecting copyright, which is the most central intellectual property law for publishers and the basis on which they publish and trade with their customers. In the world of online publishing, copyright becomes extremely complex, raising issues of access, performance and pricing. To address this complexity, DRM is evolving from licensing to new, emerging business models, including some with tools "inside the machine," tools that both protect intellectual property but also improve access to content.

The era of Internet publishing has also challenged publishers and librarians to reach

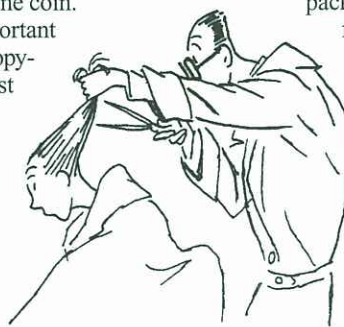
consensus on contentious issues which are yet unresolved. These include: a definition of "users," continuing access after subscription cancellation, permanent archives, course pack licensing, electronic reserves, fair use and inter-library loan.

New Business Models for e-content

The conventional pricing model for printed journals and magazines has been the subscription. It is an inflexible, single-user, "one price fits all" model irrespective of user needs or library size. Although the process of trial and error or acceptance has a long

way to go, new pricing models are emerging that avoid the straitjacket of the individual title price. We are seeing the aggregation of eBook titles into packages that can be "rented." Pay-per-view is becoming commonplace. We are also beginning to see reference products becoming subscription-based services when they are online.

continued on page 24



Population-based Pricing

The most significant alternative pricing methodology to emerge is one based on population: full-time equivalents, or FTEs, which are defined as full time enrollments in education or number of employees in corporate, government and professional libraries. For example:

— OUP operates a pricing scheme for the **Oxford English Dictionary (OED)** and the **American National Biography (ANB)** online in the USA and Canada based on FTEs in which it recognizes the characteristics of different market segments and weights the FTE count accordingly.

— **BMJ's** institutional print subscribers no longer have free online access. **Institutional Online Access** is based on medical FTEs at the institution (including remote sites that have online access to the journal).

— The **American Association of Immunology** has adopted a similar FTE-based scheme with five bands.

Usage-based Pricing

One of the most interesting and, as yet, largely untested, models is one based totally on usage. The initial evidence appears to suggest that readership of library publications varies significantly from periodical to periodical.

Over three years, **OhioLINK** has found that:

- 85 percent of usage came from 40 percent of the titles available online via **OhioLINK**; and
- 52 percent of usage was from titles not previously held on subscription at the user's campus.

This experience indicates that providing access to a large package of material but paying every time a reader — the real customer — uses an article may lead to a democratized information service in which choice is not mediated by the library. This evidence, well documented by **OhioLINK**, has been repeated at institutions as different as the **University of Toronto** in Canada, **Macquarie University** in Australia and the **University of Warwick** in the UK.

There are two possible models:

- A subscription could be based on a number of "article accesses" rather than on journal titles, as in **Elsevier Science's PEAK** experiment with the **University of Michigan**. Rather than buying a journal, a library would purchase a specific number of articles from a list of titles. Once an article had been accessed, it would remain open and accessible to all users at no further charge.
- Alternatively, user fees could be set on a sliding scale; the greater the num-

ber of users, the lower the fee per article, based on actual usage. Guaranteed minimums and maximums would meet the requirements of publishers and librarians, respectively. Experience will dictate the level of fee per use, and how the sliding scale may be set. The benefits include wider access to a broad range of content, payment by results and no more worries about what constitutes a site or a user.

Document Delivery, Interlibrary Loan and Pay-Per-View

Online availability of a significant range of core journals provides an opportunity for publishers and librarians alike to transform the speed in which readers' requests can be filled. Both publishers and librarians have much to gain. **Tenopir & King's** analysis reveals savings of \$12 - \$13 in processing electronic articles on demand, compared with the cost of a paper-based interlibrary loan or document delivery transaction. The savings on rush orders are much higher.

This opportunity is being seized both by document delivery services and by publishers:

- Document delivery organizations like **Infotrieve** actively seek licenses from publishers to download digital files online from the publisher's server and deliver the document online to the customer. For example, the **British Library Document Supply Centre** hosts **Elsevier** science journals on its own servers and delivers the articles online. Similarly, **Ingenta** hosts and provides access to 5,400 journals.
- Many publishers are now providing pay-per-view access to online journal articles on their own sites, levying only a small surcharge over the copyright fee, potentially making the need for interlibrary loans and/or document delivery services redundant.

The use of increasingly sophisticated search engines is likely to result in the identification and request for more articles, with a growing percentage outside the library's subscription list. As has been noted, the cost of processing online orders is some \$12-13 less than processing a paper-based transaction. Moreover, online delivery goes directly to the reader's desktop; it can bypass the library premises and cut out some library processes, with possible cost savings. The institution gains, the reader receives immediate delivery and the publisher "captures" the transaction.

Pay-per-view and other similar methods of reaching the individual reader directly means that publishers can become less dependent on academic and research libraries as the source of all their revenues. By selling journal articles "by the drink" — and by licensing content to aggregators and republishers who can sell into markets that would

never buy a subscription to the primary product — publishers both extend their readership and keep institutional subscription prices and licensing fees under control.

Putting the Solution Inside the Machine

Consider the ramifications of three very different Internet-based publishing enterprises, which are already underway:

- **Taylor & Francis's eBookstore** is designed to sell eBooks to individuals rather than libraries. It will contain 2,500 titles from its various imprints (notably **Routledge**). It is already in production, and will use the retail book trade as part of its distribution. It will sell complete books at a discount of 15-20% off the print price, and chapters or pages at 12 cents per page. It has packaged 180 book titles in education to be available by annual subscription. It will also "rent" eBooks for periods from 7 to 365 days for 20% to 75% of the eBook purchase price in its "eSubscribe" service. **T&F** believes that, so far as its book publishing is concerned, the online market for "fragments" may well be more remunerative than for whole eBooks.

- **Haynes Publishing** publishes car repair manuals for nearly all cars and motorcycles available in the UK, USA and Australia, and sells them through car repair shops. **Haynes** has moved all this product online. Customers can get instant online access to these manuals, choose and buy specific chapters and download them instantly. There is also a rental facility where customers who need short-term advice can view individual pages for a predetermined time and can save or print for an additional fee. The **Haynes** system holds all transactions in its memory so that it can advise a frequent customer at what point the whole manual should be purchased, rather than continuing to buy chapter-by-chapter.

- **European Case Clearing House at Cranfield University** distributes case studies for management education. Instead of shipping photocopies to business schools and universities worldwide, **ECCH** now stores them in PDF format on its server. Using DRM technology, **ECCH** can email an electronic master to a customer who can print — but not download — a single copy for local duplication. Alternatively, **ECCH** can transmit an electronic multiple which provides access to authorized students within a set time limit. The DRM ensures that these high value case studies cannot be shared with colleagues, used beyond the specified time period or emailed to other people.

These new systems create multiple user categories: members, individuals, libraries, and library consortia — and different user rights for different prices. The publisher sets the rules in the system and the machine does the rest, making detailed written age agreements on usage redundant.

continued on page 26

Digital Rights Management: from page 24

It may well be that the administrative burden both publishers and librarians face in negotiating licenses — a burden that is often out of all proportion to the value of the transaction — will decline if we adopt some of the newer content management technologies. Because of publishers' justifiable concerns about illicit use of their content, DRM is seen both by publishers and by librarians as a way of policing and of prevention, instead of an enabling technology. Our appreciation of the opportunities it provides has lagged well behind the capabilities it puts in our hands.

At the heart of DRM technology is a method of encryption that allows the publisher to control in great detail specifically how users can access the content. DRM provides permanent protection. Even after the article or other product has been distributed, access to the content can still be controlled. DRM enables a content owner to:

- distribute newsletters, journals or reports in a secure digital format to a defined readership or closed user group;
- control and monitor access to sensitive business information such as legal documents, financial data, proofs, media information and corporate intelligence; and
- offer value-added membership services, secure in the knowledge that only members have access.

The early entrants into this market offered large scale, complicated and expensive products inappropriate to small- and medium-sized publishers. Newer products are really end-to-end publishing services, such as **Sealed Media** in the UK and **Aries**, based in the USA and Germany. **Aries** has been adopted by **Karger**. **Sealed Media** technology has been adopted by **ProQuest**, which enabled **ProQuest** to secure a license to include the *Harvard Business Review* in its aggregated databases.

These content management or digital publishing systems can be integrated with a

publisher's production and distribution systems or configured and enhanced for use by specific industries. One UK-based company, **Webgenerics**, has specifically targeted scholarly publishers with a product called **dotEncrypt**. **DotEncrypt** enables publishers to distribute content such as journals, other types of documents, images, and even music in exchange for payment or consumer information, as the publisher sees fit. **DotEncrypt** is based on **Sealed Media's** technology. It can accommodate up to 3,500 different rules at the same time but it has been configured and priced for small publishers as well as large, starting at less than \$100 per month.

This sort of digital publishing system provides a host of benefits, including:

- a gateway for processing and collecting payments;
- a content management system controlled and implemented by the publisher;
- secure online distribution;
- the ability to apply different prices or rules to viewing, downloading or printing for different categories of users;
- the ability to operate different business models simultaneously;
- a fully integrated reporting function;
- the ability to offer added value to subscribers and other closed user groups;
- the potential to increase revenues by applying multiple access rules for each piece of content;
- the ability to adapt pricing after the content has been released; and
- a full text "preview" capability enabling consumers to "try before they buy."

What these new systems enable us to do is implement different usage rights for different prices and to distinguish readily between different types of users: members, individuals, libraries and library consortia. The publisher sets the rules in the system and the machine does the rest. Detailed written agreements on usage terms become redundant.

The Curse of the Plug-in

The major obstacle to a wider implementation of this sort of content management software is the requirement to download a plug-in similar to the **Adobe Acrobat Reader**. We all curse plug-ins. We tolerate the **Acrobat Reader** because it is essential to access most literature now available online. But requiring librarians to install a plug-in restricting access to online content goes a bit too far. This poses a marketing and PR problem because publishers would have to persuade their library colleagues that it opens the door to new and cost-effective ways of doing business. It would be better if no plug-in were required. Lacking a less intrusive option, however, we need some standardized way to pre-load such a plug-in with **Netscape** or **Internet Explorer**. It is unfortunately clear that we are nowhere near that stage yet.

The Downside for Libraries

In a survey of readers commissioned by **Ingenta** presented at a seminar in London in September 2001, a number of important issues about the ways readers use the literature were revealed:


- Only 16 per cent of readers use library premises to access electronic resources;
- Only 1/5 of readers consider libraries as the primary source for accessing online journals compared to more than 4/5 for print media;
- Document requests overlap subscriptions to a significant extent. Institutional subscribers appear to generate more document requests than non-subscribers, allaying fears that document delivery services will adversely affecting subscriptions; and
- A quarter of the readers surveyed paid for articles personally by credit card. Whether or not this is reimbursed from employers, the high percentage of individual payments is very significant. The use of credit cards indicates the importance of convenience for the reader. Whatever the institutional arrangements, a significant proportion of readers found them to be incomplete or simply inconvenient at the time.

If libraries are regarded as being less central to meeting the information needs of readers than they were in the print environment, publishers are in trouble as well. The defensiveness and antagonism shown by some librarians to both publishers and vendors — it has shown itself at **NASIG** in the past few years — is wholly out of place. There are too many rewards from positive cooperation, for example, in developing archives for e-content, creating standards for metadata and trying new business models, to allow our differences to impede progress toward furthering the spread of knowledge.

At the same time, it is in publishers' interests to become less dependent on academic and research libraries as the sole source of revenue. Publishers should pursue innovative opportunities such as selling journal articles or book chapters "by the drink," and licensing content to aggregators and re-publishers; the latter can reach markets that would never buy publications directly. The end result: a wider readership and new revenues which help keep down journal subscription prices.

It's Still a Publishing Business

It is very easy for us to be mesmerised by the technology and daunted by the organisational and commercial challenges that the Internet has laid before us. Nevertheless, the fundamentals of publishing — making products out of ideas, managing quality control, reaching users and generating the revenue necessary to enable publishers to meet the needs of the communities they serve in the future — remain largely unchanged.

We inhabit a very conservative community. We need to take risks in trying out new pricing models. In short, we need to look at and beyond the horizon. The real challenge is to ourselves. 

Rumors from page 16

ABI/INFORM include: *Journal of the Operational Research Society* (cited in both *Journal Citation Reporter* and literature surveys as one of the critical operations research titles worldwide), *Asian Business & Management*, and *European Journal of Information Systems*. The agreement is effective immediately. <http://www.il.proquest.com/>.

Coutts Library Services, **Matthews Medical Books** and **Theodore Front Musical Literature** are now participating in the **OCLC PromptCat** service. **Coutts Library Services** is a specialist in Canadian titles and a leading

continued on page 28